

ABSTRACT

Multi-channel high resolution segmented resistor string digital-to-analog converters (DACs) suitable for realization in a single integrated circuit. The DACs incorporate a primary resistor string shared by all channels, and one or more additional pluralities of additional resistor strings for additional resolution. The primary resistor string may be buffered to limit the effect of loading thereon by the plurality of resistor strings coupled thereto. Current sources may also be coupled to the resistor strings coupled to the primary resistor string to also avoid loading of the primary resistor string. A trimmable resistor string of fewer bits may be connected to the primary resistor string for laser trimming. In the embodiment disclosed, a plurality of secondary and tertiary resistor strings are used, with leapfrogging minimizing the switches required.